SIEMENS

UROSKOP ACCESS

SP

Installation and Start-up

System

Urodynamic Interface/Scan Converter

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2003

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English

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The document corresponds to the version/revision level effective at the time of system delivery. Revisions to hardcopy documentation are not automatically distributed.

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Requirements

Required aids and tools

NOTE

All tools, measuring equipment and aids, with the exception of the standard installation tool kit, are listed and specified in the Service Tools Catalogue (contained in the Spare Part Catalogue).

General Information

- The original version of this document was written in German.
- The illustrations and drawings may differ slightly from the delivery condition, depending on the actual system.
- Damaged or worn parts must be replaced with original parts.

Safety information

General safety information

∆WARNING

Danger of injuries, death or material damage.

Non-compliance can lead to death, injury or material damage.

□⇒ Observe the product-specific safety guidelines in this document, the general safety guidelines in document TD00-000.860.01, and the safety guidelines in accordance with ARTD Part 2.

General Safety Information, Electrical



∆WARNING

Electrical safety!

Non-compliance can lead to severe injury or even death, as well as material damage.

- After the cover panels are opened, parts under voltage are accessible. To avoid danger, disconnect the system from the power supply prior to opening the covers. Pull out the power supply plug.
- If an uninterruptible power supply (USV) is installed in the system, the voltage output of the USV must also be deenergized or the voltage output plug must be disconnected.



∆CAUTION

Electrical voltage!

Non-compliance can result in material damage.

⇔ When working on the system, ESD regulations must be observed.

Safety Information, Mechanical

ACAUTION

Risk of burns from hot parts or components!

If not observed, minor to more severe burns, especially on the hands, can occur. After opening the cover panels, parts and components (e.g. power components, cooling units) are accessible that can reach temperatures of $> 50^{\circ}$ C during operation.

 □ To avoid burns, switch the system off prior to touching parts or components and allow at least 5 minutes of cool-ing.

ACAUTION

Risk of injury from mechanical parts!

If not observed, minor to more severe injury, especially to the hands, can occur. After covers are opened, parts such as flat plugs, threaded bolts, cut-off cable ties and edges of components can be touched which, if care is not taken, can cause crushing, scrapes and cuts to the skin, particularly to the hands.

- □ Perform the required work with special care and attention to detail.
- □ If needed, wear work gloves.

Safety Information, Risk of Infection

∆WARNING

Risk of infection due to pathogens!

Non-compliance can lead to severe injury and even death. This product can be contaminated by infected blood or other bodily fluids.

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- ⇔ Strictly observe the safety information in ARTD-002.731.37 regarding prophylactic measures against infectious diseases during service.

Additionally required documents

ARTD Safety and Radiation Protection Guidelines	ARTD, part 2
ARTD Safety and Radiation Protection Guidelines (Safety Regulations for Installation and Maintenance)	ARTD, part 2 (ARTD-002.731.17)
ARTD Safety and Radiation Protection Guidelines (Prophylactic Measures against Infectious Diseases during Service)	ARTD, part 2 (ARTD-002.731.37)
Medical Products; Safety Information; General Safety Notes	TD00-000.860.01
Installation Instructions; System	SPL5-330.812.01

Abbreviations

ESD	Electrostatically sensitive device
FLC	Imaging system FLUOROSPOT Compact
OTV	Optical isolation amplifier
USV	Uninterruptible Power Supply

Urodynamic Interface/Scan Converter

The following installation and start-up instructions describe the installation and programming of the urodynamic option. Part number 57 56 098 (retrofit scan converter kit) is required for an endoscopy interface. Otherwise part number 57 56 494 (optical isolation amplifier) and part number 57 56 452 (urodynamic interface) are required.

 Prior to beginning work, check the completeness of the retrofit kits according to the following setup.

Retrofit scan converter kit, part number 57 56 098

Number	Part number	Description
1	30 84 134	Scan converter
1	75 57 526	Scan converter connection cable
1	30 79 035	SVGA cable, 3,000 mm (5 BNC, 15 pol. SUB-D HD)
1	30 65 844	SVGA cable, 2,000 mm (5 BNC, 15 pol. SUB-D HD)
1	30 89 497	SVGA cable, 3,000 mm (2 BNC, 15 pol. SUB-D HD)
1	37 95 239	BNC video cable (or S-video adapter)

Scan converter

NOTE

There are two types of scan converter, which differ in the color of the housing and in the type designation:

- Corioscan Pro S;
- TVone CS-500A.

Both have the same part number, 30 84 134, since they are technically identical.

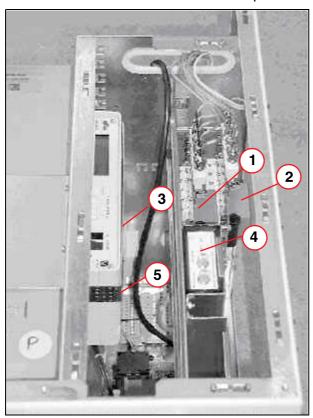
The parameter "CSync In Fr" in the model TVone CS-500A can no longer be selected and configured.

Upgrade kit, optical isolation amplifier (OTV; part no. 57 56 494)

Number	Part numer	Description
1	46 72 028	OTV80M2
1	75 58 518	OTV power cable
2	37 95 239	BNC video cable

Installation

- Remove the rear panel, the cover, and the right side panel (as viewed from the front of the container) from the imaging system container (see also the document "Installation Instructions; System" [SPL5-330.812.01]).
- Install the scan converter (3/Fig. 1 / p. 8) und den OTV (4/Fig. 1 / p. 8) (optical isolation amplifier) in the imaging system container of the UROSKOP Access.
 - No OTV is installed if an endoscopic interface is present.



- Fig. 1: Imaging system container
- Pos. 1 Image signal splitter 2 (reference image)
- Pos. 2 Image signal splitter (live image)
- Pos. 3 Scan converter
- Pos. 4 Optical isolation amplifier (OTV)
- Pos. 5 Scan converter holder

Scan converter (connections)

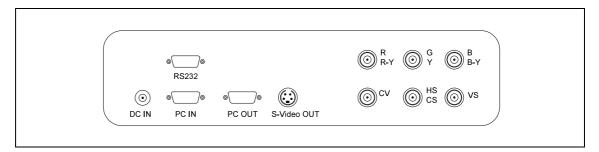


Fig. 2:

Image signal splitter (connections)

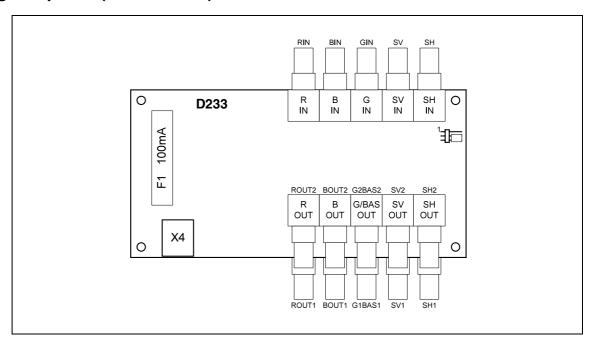
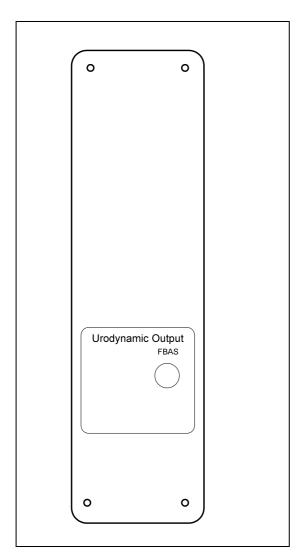


Fig. 3:



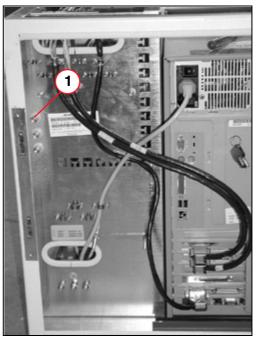


Fig. 5:
Pos. 1 BNC 1 urodynamic option

Fig. 4: Urodynamic interface

Installation and wiring of the scan converter

NOTE

When there is an endoscopy interface, points 5, 6, 7, 10 can be omitted. The video cable of the "CV" video jack of the scan converter (or the S-video jack, depending on the delivery) is then connected directly to the "BNC 1" video jack in the imaging system container.

- 1. Establish the power supply via the cable connection from the "DC IN" of the scan converter to D1.X7.
- 2. Remove the cable from the live monitor in the control room to the live image output of the image signal splitter.
- 3. Connect the short SVGA cable (2 m) between the "PC IN" of the scan converter and the available live output of the image signal splitter (Fig. 3 / p. 9).
- 4. Run the long SVGA cable (3 m) between the "PC OUT" of the scan converter (Fig. 2 / p. 9) and the monitor in the control room and connect the cable.
 - In the case of a SIMOMED monitor, only the green BNC cable is connected; isolate the other connections.
- 5. Connect the power cable at the OTV and secure it to terminal strip K2 in the imaging system container.
- 6. Run the video cable from the "CV" video jack of the scan converter (or the S-video jack, depending on the delivery volume) to the input of the OTV and connect them.
- 7. Run the video cable from the output of the OTV to the "BNC 1" video jack in the imaging system container.
- 8. Ensure that the BNC cable included in the W650 is connected to the "BNC 1" jack (imaging system container output) (1/Fig. 5 / p. 10).
- 9. Use the cable ties to secure the cables.
- 10. Connect the BNC cable located at the lifting base in the back wall of the device (monitor switchover URO).
- 11. Install the urodynamic interface in the back wall of the UROSKOP Access lifting base.

Programming the scan converter

Standard programming

NOTE

For the scan coverter to be programmed, an image input signal from the live image must be present.

- Connect the urodynamic measuring unit to the output of the urodynamic interface FBAS (BNC jack) (Fig. 4 / p. 10) (this connection is used to export the X-ray video signal to the monitor of the urodynamic measuring unit).
- Switch the scan converter on. Press the **Menu** key of the scan converter several times until **Adjust: Auto Set** appears.
- Press the + key within 15 s and wait for the adjustment.
 - The adjustment is complete once an image appears on the monitor or the display automatically switches back to the **Status:** menu.
- If no image appears on the monitor, press the **Menu** key until the **Adjust: Advanced...** menu is displayed. Press the **+** key within 15 s.
- Use the Menu key to set Output Sig. Use the + or key to set the output to RGB.
 - An image is displayed on the test monitor.
- Select the menu Advanced...RGB Term. and with the + or key select the paramater OFF.
- Select the **Advanced... Video Std** menu and use the + or to set the parameter **PAL** (European standard) oder **NTSC** (USA standard), depending on your location.
- Select the **Advanced Engineering** menu and press the + and keys simultaneously, until the following sub-menus appear.
 - Select the **DAC Ref.** menu and set **65** (press the + or the key).
 - Select the CV Filter and set 0. (Press the + or the key; standard setting is 25).
- With the **Menu** key, select **Exit** and use the + to return to the **Advanced** menu.
- Press the Menu key and the + key at the same time for approx. 2 s to store the configuration in the permanent memory.
 - An acoustic signal is emitted.
- Switch the scan converter off and then on again and check the configuration.

Cutting off the menu bar (ASPIA)

NOTE

This subsection refers exclusively to UROSKOP-Access systems with the ASPIA imaging system.

- Press the Menu key until Adjust: Screen size appears.
- · Press the + key.
 - The sub-menu is displayed.

- Set Out H-Centre to 79 (press the + or the key).
- With the **Menu** key, select **Exit** and use the + to return to the **Advanced** menu.
- Press the Menu key until Manual Set appears.
- Press the + key (the sub-menu is displayed).
 - Select **VGA Left** and set **18**, until only the X-ray image is visible (press the + or the key, default setting is **9**).
- Use the **Menu** key to select **VGA Store** for a save operation and press the **+** key until an acoustic signal is emitted.
- To save all settings, press the Menu key and the + key at the same time..
- Switch the UROSKOP Access off and back on again.

Cutting off the menu bar (FLUOROSPOT Compact)

NOTE

This subsection refers exclusively to UROSKOP-Access systems with the FLC imaging system.

- Press the Menu key until Adjust: Screen size appears.
- Press the + key.
 - The sub-menu is displayed.
- Set Out H-Centre to 65 (as setting for PAL; setting for NTSC is 66) (press the + or the - key).
- With the Menu key, select Exit and use the + key to return to the Advanced menu.
- Press the Menu key until Manual Set appears.
- Press the + key (the sub-menu is displayed).
 - Select VGA Left and set 1, until only the X-ray image is visible (press the + or the key).
- Use the **Menu** key to select **VGA Store** for a save operation and press the **+** key until an acoustic signal is emitted.
- To save all settings, press the **Menu** key and the + key at the same time...
- Switch the UROSKOP Access off and back on again.

Scan converter parameter table (ASPIA imaging system)

Tab. 1 Scan converter parameter table (ASPIA)

Parameters	Default value (PAL)	Default value (NTSC)
Menu"Screen Size"1		
Out H-Centre	79	79
Out H-Width	93	94
Out V-Centre	160	132

Parameters	Default value (PAL)	Default value (NTSC)
Out V-Height	260	215
Menu "Manual Set"2		
VGA Left	18	18
VGA Width	47	47
VGA Top/4	7	7
VGA Bot/4	266	266
Menu "Advanced"		
Video Standard	PAL	NTSC
Output Signal	RGB	RGB
H. Soften	Off	Off
Sense	1	1
RGB Term.	Off	Off
Sync In	VGA HV	VGA HV
CSync In Fr ³	70	70
Sync Out	-CS-CS	-CS-CS
Menu "Engineering"		
ADC Ref.	131	131
DAC Ref.	65	65
CV Filter	0	0
Adj. Osc.	0	0
SC/H Phase	4	4
Y/C Delay	1	1

^{1.} The parameters in the menu "Screen Size" (Out H-centre, Out H-width, Out V-centre, Out V-height) can vary from customer to customer, depending on the factory-set monitor settings implemented by the manufacturer in the urodynamic system.

^{2.} The parameters in the menu "Manual set" (VGA left, VGA width, VGA top/4, VGA bott/4) can vary from customer to customer, depending on the factory-set monitor settings implemented by the manufacturer in the urodynamic system.

^{3.} For the scan converter model TVone CS-500A, this parameter is no longer selectable.

Scan converter parameter table (FLUOROSPOT Compact imaging system)

Tab. 2 Scan converter parameter table (FLC)

Parameters	Default value (PAL)	Default value (NTSC)
Menu "Screen Size"1		
Out H-Centre	65	66
Out H-Width	81	80
Out V-Centre	160	130
Out V-Height	260	215
Menu "Manual Set"2		
VGA Left	1	1
VGA Width	42	42
VGA Top/4	9	7
VGA Bot/4	266	266
Menu "Advanced"		
Video Standard	PAL	NTSC
Output Signal	RGB	RGB
H. Soften	Off	Off
Sense	1	1
RGB Term.	Off	Off
Sync In	VGA HV	VGA HV
Sync Out	-CS-CS	-CS-CS
Menu "Engineering"		
ADC Ref.	131	131
DAC Ref.	65	65
CV Filter	0	0
Adj. Osc.	0	0
SC/H Phase	4	4
Y/C Delay	1	1

^{1.} The parameters in the menu "Screen Size" (Out H-centre, Out H-width, Out V-centre, Out V-height) can vary from customer to customer, depending on the factory-set monitor settings implemented by the manufacturer in the urodynamic system.

^{2.} The parameters in the menu "Manual set" (VGA left, VGA width, VGA top/4, VGA bott/4) can vary from customer to customer, depending on the factory-set monitor settings implemented by the manufacturer in the urodynamic system.

Faulty screen display

• To revert to the factory settings, switch off the scan converter, press and hold the + and - keys simultaneously, and restart the scan converter.

Final work steps



- Perform a function test.
- Attach all panels and housing components to the imaging system container.

Protective Conductor Test

NOTE

Perform the protective conductor test again after any repairs, installation of new components, or maintenance.

Document and assess the values determined in the repeat measurement.

- Perform the test in accordance with DIN VDE 0751, Part 1 (see ARTD Part 2, ARTD-002.731.17).
 - In the course of the test, the protective conductor resistance in the normal operating state of the system must be measured from the protective conductor connection clamp on the system side to all touchable conductive system parts.

Make sure that control cables or data cables between the components of the system are not mistaken for a protective conductor connection.

The ground wire resistance must not exceed 0.2 ohms.

Document and assess the values determined in the repeat measurement, indicating the measurement points.

Additionally, the measurement procedure and the measurement instrument used (type designation and serial number) must be documented.

NOTE

Evaluate the results by comparing the first measured value to the corresponding values documented during previous maintenance procedures or safety checks.

A sudden or unexpected increase in the measured values may indicate a defect in the ground wire connections (ground wire or contacts) - even if the limit value of 0.2 ohms is not exceeded.

Subsection "Required aids and tools"	completely revised
Subsection "General guide- lines"	new.
Subsection "Safety guide- lines"	completely revised
Subsection "Additionally required documents"	completely revised
Subsection "Abbreviations"	new.
Subsection "Scan converter"	new.
Subsection "Installation"	second point revised
Subsection "Programming the scan converter"	completely revised; "Cutting off the menu bar (FLUOROSPOT Compact)" new; "scan converter parameter table (FLUOROSPOT Compact imaging system)" new
Subsection "Final work steps"	"Protective conductor test" new